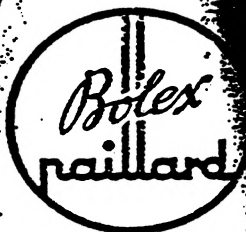
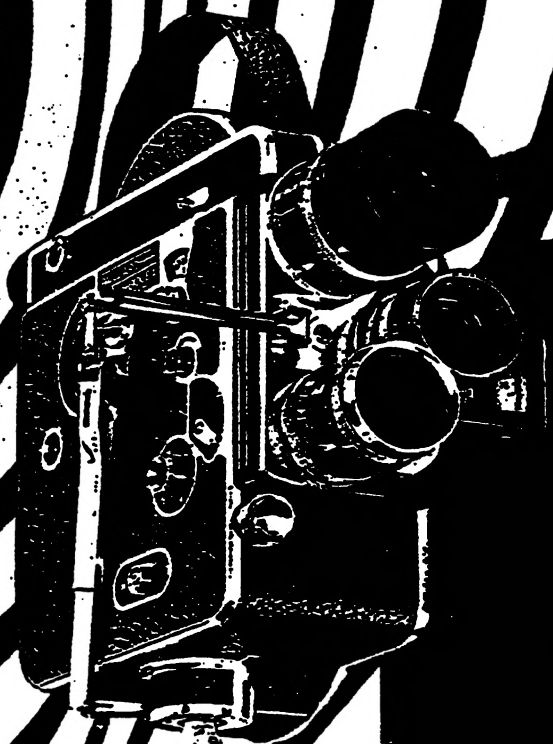
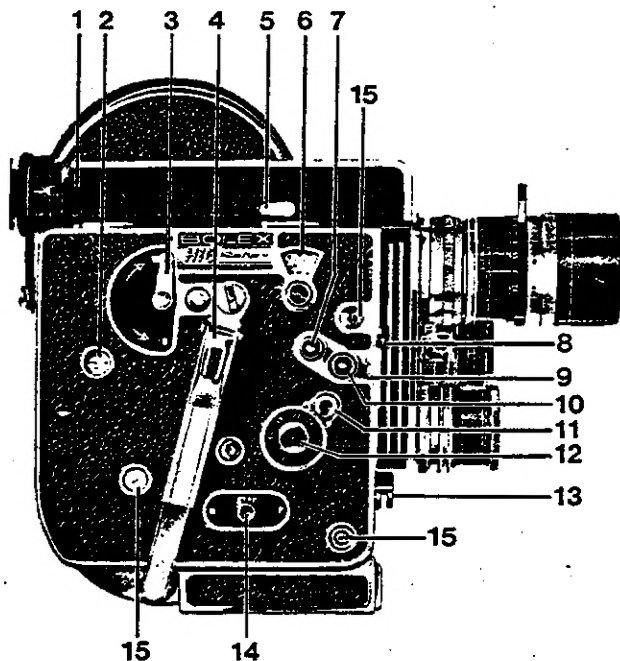


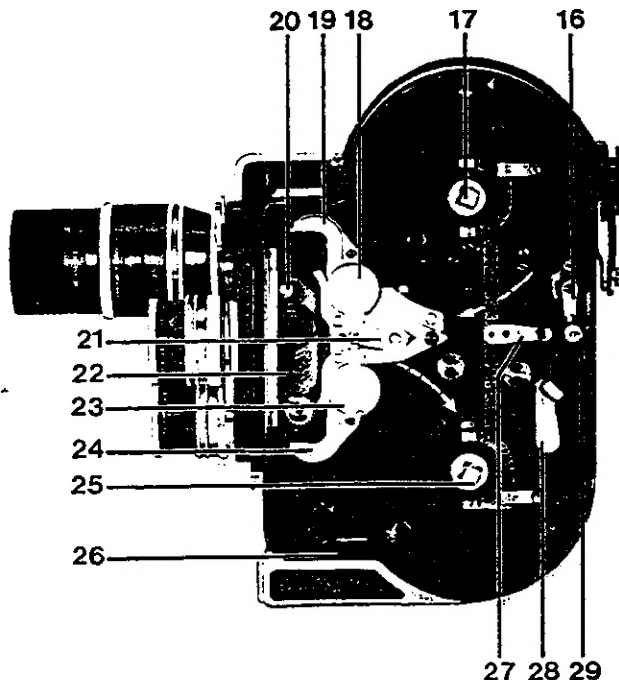
H16 REFLEX

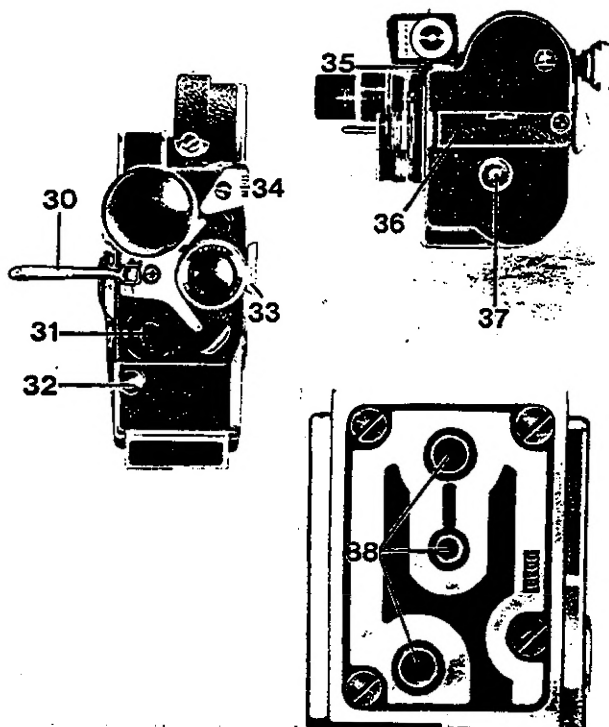




- 1 Reflex viewfinder (page 8)
- 2 Footage counter (page 29)
- 3 Lever for disengaging spring motor (page 16)
- 4 Spring motor winding handle—spring run: 28 sec. at 24 f.p.s. (page 16)
- 5 Reflex viewfinder closing lever (page 9)
- 6 Frame counter (page 29)
- 7 Coupling spindle for electric motor MCE 17 B and film rewind handle (pages 18 and 19)
- 8 Variable shutter dial and control lever (page 20)
- 9 Film plane guide mark
- 10 Coupling spindle for electric motor MST (page 18)
- 11 Exposure control knob for instantaneous (I) or time exposures (T) (single frame filming) (page 17)
- 12 Film speed selection knob (page 16)
- 13 Front release for normal running (page 17)
- 14 Side release for normal running, continuous filming (M) and single frame exposures (P). Can be operated by cable (page 17)
- 15 Threaded holes for various accessories and motors

- 16 Lever for suppressing audible signal (page 30)
- 17 Upper spool shaft for feed spool
- 18 Upper loop former
- 19 Upper sprocket
- 20 Pressure pad locking pin (page 27)
- 21 Loop former locking lever and opening knob (page 28)
- 22 Pressure pad (page 27)
- 23 Lower sprocket
- 24 Lower loop former
- 25 Lower spool shaft for take-up spool
- 26 Film knife
- 27 Spool ejector (page 31)
- 28 Retaining arm
- 29 Feet setting on footage counter (page 29)





- 30 Turret lever (page 11)
- 31 Threaded hole for turret locking screw
- 32 Front release for normal running (page 17)
- 33 Filter holder (page 14)
- 34 Turret locking clamp (page 11)
- 35 Shoe for attaching exposure meter (page 13)
- 36 Auxiliary multifocal viewfinder (page 9)
- 37 Lid opening ring
- 38 Three threaded holes (2— $\frac{3}{8}$ " dia and 1— $\frac{1}{4}$ " dia) for tripod or hand grip
- 39 Serial number of the camera (page 1)

16 mm films

The H 16 Reflex camera takes 100 or 50 ft. spools of single or double perforated 16 mm film. Films with a single row of perforations are used when a magnetic track is to be added to the original film.

At each extremity of the film there is a leader—approximately 6 ft. at the beginning and 3 ft. at the end—to prevent the sensitive film being exposed to light during loading or unloading. These leaders are usually removed by the processing laboratories.

Black-and-white and colour films come in various sensitivities, which are expressed in ASA or DIN degrees and indicated on the instructions leaflet accompanying each film. The date before which the film should be exposed is normally stamped on the film pack. 16 mm film is available in the unprocessed condition with a magnetic stripe for sound recording. We would advise you against using this film: the magnetic layer can cause premature wear on the parts which come into contact with it, particularly the pressure pad, and metal particles may find their way into the camera mechanism.

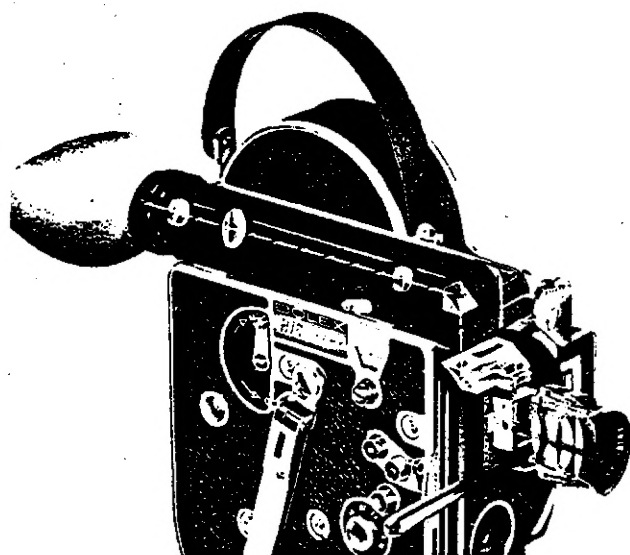
Film running times at the following filming speeds

f.p.s.	12	18	24	32	48	64
1 m (~ 3 ft)	10.9 sec.	7.3 sec.	5.5 sec.	4.1 sec.	2.7 sec.	2 sec.
15 m (~ 50 ft)	2 min. 44 sec.	1 min. 49 sec.	1 min. 22 sec.	1 min. 1 sec.	41 sec.	30 sec.
30 m (~ 100 ft)	5 min. 28 sec.	3 min. 38 sec.	2 min. 44 sec.	2 min. 3 sec.	1 min. 22 sec.	1 min. 1 sec.

The reflex viewfinder

The optical system of the H 16 Reflex camera allows for through-the-lens viewing during filming as well as when the camera is not running. The picture formed on the ground glass of the reflex prism is absolutely free from flicker.

The reflex viewfinder enables framing and accurate

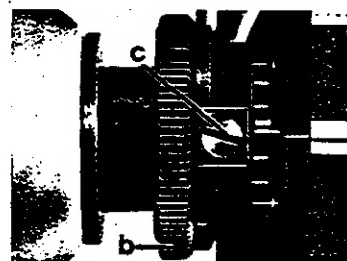


focusing of the subject to be achieved. In addition, it enables you to estimate the depth-of-field, to determine the correct focal length, to check on the filter being used and to evaluate the illumination of the scene.

The reflex prism deflects, into the viewfinder, an average of 20-25 % of the light passing through the lens. This factor has been taken into account in the table of exposure times on page 13.

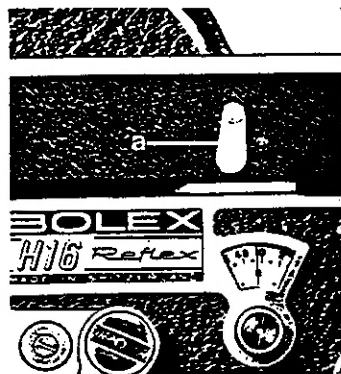
Adjusting the viewfinder eyepiece to the operator's eyesight. This adjustment adapts the viewfinder to the operator's eyesight, whether or not he wears spectacles, and remains the same for all lenses used on the camera. It is advisable to check this adjustment from time to time.

1. Turn the turret to expose the reflex prism.
 2. View a well-lighted subject.
 3. Loosen the milled ring (b) and turn lever (c) until the grain of the ground glass is perfectly sharp. Then tighten the ring (b) which acts as a lock-nut.
- If your eyesight is normal, the line engraved on the lever (c) will be opposite the longest line on the fixed ring.



Closing the viewfinder. If the reflex viewfinder is not used during filming, close it by moving the small lever (a) into a vertical position. If it is left open, there is a risk of sunlight or artificial light from behind the camera entering the viewfinder eyepiece and fogging the film.

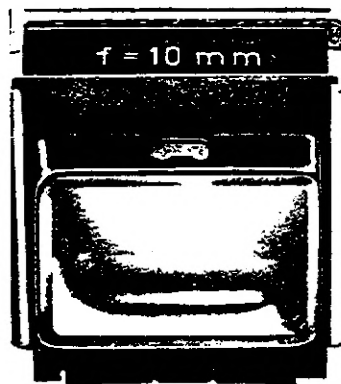
Focusing. Open the diaphragm wide, then turn the distance setting ring until the picture is in sharp focus on the ground glass. Then close the diaphragm to the correct setting.



The auxiliary multifocal viewfinder

The H 16 Reflex camera is equipped with a detachable multifocal viewfinder, provided with parallax correction from 20" to infinity. Its field can be instantly and continuously adapted for lenses with focal lengths of 16, 25, 35, 50, 63, 75, 100 or 150 mm. The viewfinder also incorporates an extra lens, mounted on a sliding bracket. Quickly put into place, this lens immediately adapts the viewfinder to the field of a wide-angle lens (10 mm). When this lens is in use, the multifocal viewfinder should be set for the shortest focal length (16 mm).

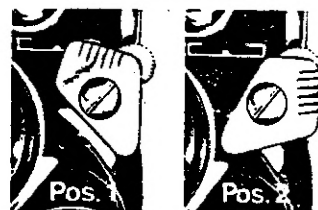
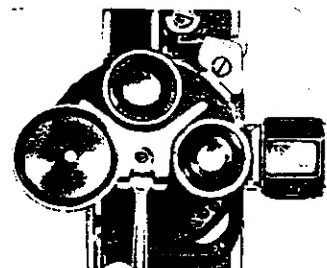
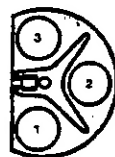
The auxiliary viewfinder can be mounted or removed from the camera in seconds by means of a lever. It is extremely useful for previewing the subject, and therefore picture composition and focal length can be determined without having to move the camera.



Optical equipment

The turret. Simply by turning the turret, you can change rapidly from one focal length to another, from a medium long view to a long view or a close-up. To turn the turret, use its fold-away lever. In this way, there is no risk of accidentally moving the diaphragm and focusing rings. Three click stops ensure that the lenses are correctly positioned in front of the filming aperture. When using heavy lenses, such as zooms or telephotos with very long focal lengths, the turret should be locked (Pos. 2) with a special clamp.

Correct position of the lenses on the turret. Keep the lenses positioned as shown opposite, so that there is a reasonable distance between the wide-angle lens (1) and the long focal length lens (3). It is as well to remove 100 and 150 mm lenses from the turret before using a shorter focal length lens, in order to keep its field clear. When using a heavy lens, such as a zoom, the turret should be locked with a plug.



The lenses. The H 16 Reflex camera takes "C" mount lenses (see important note below) which have the following characteristics:

Thread diameter: 25.4 mm (1")

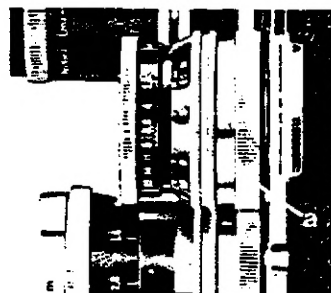
Maximum thread length: 4.06 mm (.160")

Film plane / lens seat distance: 17.52 mm (.690")

Lenses should be held by their rear rings (a) when being screwed into the turret.

Standard lenses (25 and 26 mm) are suitable for most shots.

Wide-angle lenses (10 and 16 mm) are used for general views or when it is difficult to move back from the subject (buildings, interiors, etc.). They give heightened perspective.

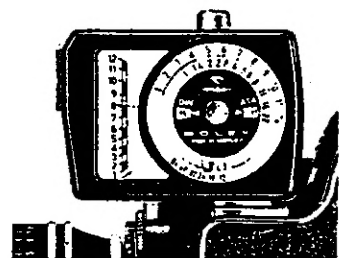


Diaphragm setting

The lens diaphragm controls the amount of light reaching the film and is adjusted according to the lighting conditions, the film sensitivity, the filming speed and the position of the variable shutter. The amount of light admitted by the diaphragm is doubled at each successive setting, starting from the highest figure. For instance, moving the diaphragm setting from f/11 to f/8 doubles the amount of light passing through the lens.

The Bolex exposure meter was designed and calibrated especially for the H 16 Reflex camera and allows for the fact that 20-25 % of the light is deflected into the viewfinder by the reflex prism. The exposure meter fits on to a special shoe (see page 6).

The use of the exposure meter safeguards against exposure errors. In the chart opposite, the figures listed in the column under "adapted exposure times" take into account the light deflected by the reflex prism.



Exposure times (in fractions of a second)

Filming speed	Shutter open Lever up		Shutter 1/2 closed Lever on 1/2		Shutter 1/2 closed Lever on 1	
	Real	Adapted	Real	Adapted	Real	Adapted
12 f.p.s.	1/33	1/40	1/45	1/55	1/75	1/94
16 f.p.s.	1/45	1/55	1/60	1/75	1/100	1/125
18 f.p.s.	1/50	1/60	1/70	1/87	1/110	1/137
24 f.p.s.	1/65	1/80	1/90	1/112	1/150	1/188
32 f.p.s.	1/90	1/110	1/120	1/150	1/200	1/225
48 f.p.s.	1/130	1/160	1/180	1/225	1/300	1/375
64 f.p.s.	1/180	1/220	1/240	1/300	1/400	1/500
Speed control knob on	Single-frame exposure		(selector in position T)			
18-64 f.p.s.	1/30	1/40	—	—	—	—

Telephoto lenses (50—150 mm) are used for long distance shots and are ideal for filming sports scenes, children, animals, etc.

To protect lenses from dust and impurities, it is advisable to replace the lens caps between takes.

Important. Special 10, 16, 25 and 50 mm lenses have been designed exclusively for use on the H 16 Reflex camera. Lenses with focal lengths over 50 mm can generally be used equally well on the H 16 Reflex as on cameras without reflex viewfinder.



Focusing

The reflex viewfinder of the H 16 Reflex camera shows you the picture as it will appear on the film, with its sharp and blurred areas faithfully reproduced. It is thus simple to focus accurately and, at the same time, to estimate the depth-of-field.

The depth-of-field is the area within which the picture is in focus. It varies according to the focal length of the lens, the diaphragm opening and the filming distance. The longer the focal length, the wider the diaphragm opening or the shorter the filming distance, the shallower the depth-of-field will be. Focusing must therefore be especially accurate.

Conversely, the shorter the focal length, the smaller the diaphragm opening or the longer the filming distance, the wider the depth-of-field will be—and the greater the margin for focusing inaccuracy.

On most lenses, a depth-of-field scale indicates the distances within which the picture will be in focus. Lenses are also supplied with a depth-of-field chart. Distances are calculated from the film plane, marked ϕ .



Filters

The H 16 Reflex camera has a filter-slot between the taking lens and the reflex prism. The filters therefore remain in place whichever lens is being used. **When filming without a filter, an empty filter holder should be left in the slot to prevent light infiltration which would fog the film. See that the filter mount is firmly located in the slot.**

The set of filters for the H 16 Reflex camera comprises four filter holders, a filter cutting frame and four envelopes, each containing one of the following 2" square gelatine filters.

The effect of a filter varies according to the type of film, its sensitivity and the lighting conditions. The diaphragm corrections below should be considered as only approximate.

The 1 A Skylight filter for colour films, tones down excessive blue and improves colour reproduction (in the shade or overcast weather, for distant shots, when filming in snow or at high altitudes). This filter requires no diaphragm correction.

The 85 Daylight filter for colour films is a conversion filter. It is used for filming in daylight with Kodachrome II Type A artificial light film. When setting the diaphragm, remember that colour film for artificial light, used with the 85 Daylight filter, has the same sensitivity as a daylight colour film used without filter.

The Yellow 8 filter is used for increasing contrast in black-and-white films.

Type	Open diaphragm	or divide ASA rating by
Kodak Wratten 1A Skylight	—	—
Kodak Wratten 85 Daylight	$\frac{2}{3}$ stop	1.6
Kodak Wratten 8 Yellow	1 stop	2
Kodak Wratten ND 06 Neutral density	2 stops	4

36

The neutral density filter can be used with both black-and-white and colour films and in no way affects colour reproduction. As the ASA sensitivity is reduced four times, the diaphragm can be opened two stops. This filter is used:

1. When the lighting conditions and the film sensitivity require an aperture lower than the smallest stop on the lens.
2. When it is desired to reduce the depth-of-field in order to achieve special effects (sharp foreground against blurred background).

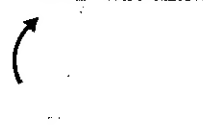
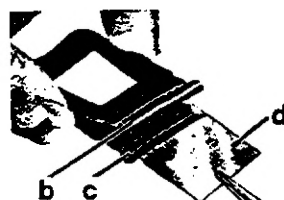
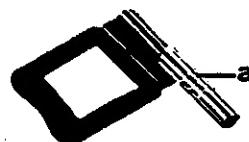
Mounting gelatine filters. Filters are mounted as follows:

1. Hold the filter cutting frame horizontally (g).
2. Insert gelatine filter, with its protective covers, as far as it will go into the frame.
3. Hold the frame firmly and cut around it with sharp scissors.
4. Remove the filter by its edges. Fingerprints cannot be removed.
5. Remove the fastening clamp (a) from the filter mount.
6. Open the spring blades (b) and (c).
7. Insert the cut-out-filter (d) between the blades.
8. Press the spring blades (b) and (c) together between thumb and index finger.
9. Replace the fastening clamp (a).

When you have finished, put the filter-mounts in their case to protect them from dust.

Focusing adjustment. Placing a filter behind the lens slightly alters the lens focusing. However, the necessary correction is automatically made when the reflex viewfinder is used.

Important. Because of its distance from the film plane, the filter mount cannot be used as a mask holder for trick effects, such as keyhole and binocular cut-outs. The shape of the mask will not appear on the film and it will only darken the scene.



The variable shutter

The H 16 Reflex camera is equipped with a shutter whose aperture can be varied both when the camera is running and when it is stopped. This enables you to reduce exposure time without changing the filming speed. In dazzling light, such as snow and water scenes, the variable shutter can be used to reduce exposure, thereby often eliminating the need for a neutral density filter.

The shutter can be locked in each of its four positions by pushing the lever inwards. The $\frac{1}{4}$ and $\frac{1}{2}$ closed positions are marked on the face of the lever by the figures $\frac{1}{4}$ and 1, which signify:

$\frac{1}{4}$ closed position (marked $\frac{1}{4}$): the diaphragm should be opened half a stop to compensate for the reduced exposure time, due to the shutter being $\frac{1}{4}$ closed.

$\frac{1}{2}$ closed position (marked 1): the diaphragm should be opened one stop.

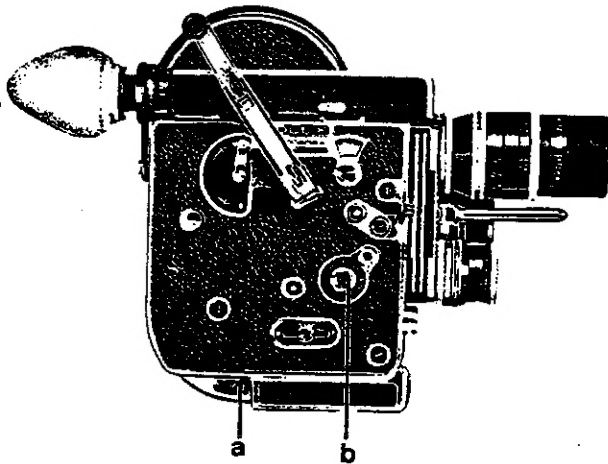
A triangular warning signal appears in the reflex viewfinder when the variable shutter is not in the fully open position.



Winding the motor

Move the side release to STOP and the motor dis-engaging lever to MOT. Lift the motor winding handle, which automatically engages with the spindle, and turn anti-clockwise. Wind the spring motor fully but without forcing it, then lower the handle and secure it on catch (a). Otherwise, there is a risk of it turning with the motor during filming.

Fully wound, the motor drives nearly 18 ft. of film, i.e. 28 seconds' filming time at the speed of 24 f.p.s. Make a habit of rewinding the motor after each take, regardless of how much power is still in reserve.



Film speeds

The camera has seven filming speeds: 12, 16, 18, 24, 32, 48 and 64 frames per second.

To select the desired speed, turn the control knob (b) until the corresponding figure is opposite the red dot. When the film is projected at normal speed (18 or 24 f.p.s.), a lower filming speed will produce an accelerated motion effect while a higher filming speed will give a slow motion effect. When changing film speed, do not forget to alter the diaphragm setting. When changing from 24 to 32 f.p.s., the diaphragm should be opened half a stop, from 24 to 48 f.p.s. by a whole stop and from 24 to 64 f.p.s. by 1½ stops (see page 13).

Important. When the camera is not loaded, it should not be run at speeds over 32 f.p.s. as this could damage the mechanism.

The release selector

The H16 Reflex camera can be used for normal, continuous or single-frame filming. These different operations are controlled by the **side release**.

Normal filming. This filming method is suitable for most general shots. The camera runs as long as the operator depresses the front release or pushes the side release towards M (generally by using a cable).

Cable release. For maximum stability, when the camera is mounted on a tripod, it is advisable to use a cable release which fixes, by means of an adapter, on to the side release knob.

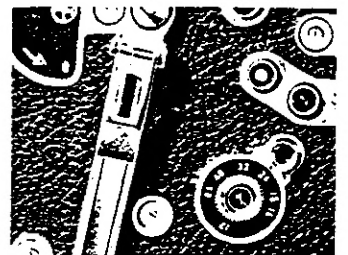
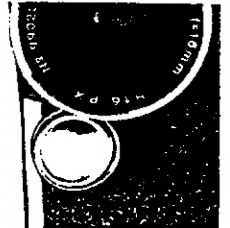
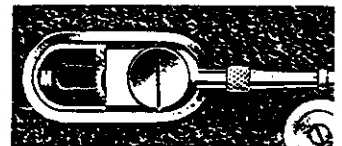
Single frame filming. Push the side release to P.

Instantaneous: turn the knob until the guide mark is in position I. **Time exposures:** guide mark in position T (for use in poor lighting conditions, such as indoors).

When making time exposures, open the variable shutter fully or one of its blades may mask part of the picture.

You can also use an electric motor which ensures absolutely constant exposure time for every frame at the selected speed. This prevents the slight flicker which inevitably results from using a spring motor (see page 47).

Single frame filming is used for titles, cartoons, scientific films and various trick effects, particularly accelerated motion (clouds, sunsets, comic effects, etc.). Use a cable release to prevent any risk of camera movement.



Hand cranking. The mechanism of the H 16 Reflex camera can operate in reverse as well as forward motion by means of a small auxiliary crank. The spool can thus be fully rewound and a partly exposed film removed from the camera. This is particularly useful for special effects, such as lap dissolves, double exposures and trick effects.

To rewind the film:

1. Disengage the motor by moving lever (1) to O. If you feel a slight resistance towards the end, do not force the lever but press the front release while continuing to move the lever.
2. Move the side release (2) to M (continuous filming).
3. **Close the variable shutter** by lowering lever (3) so as not to fog the film (see page 20).
4. Turn the hand crank (4) in the direction of the engraved arrow but do not try to rewind the film faster than allowed by the speed governor.

To resume normal motor-driven operation, move the side release to STOP and the disengaging lever to MOT.

Do not forget to re-open the variable shutter.

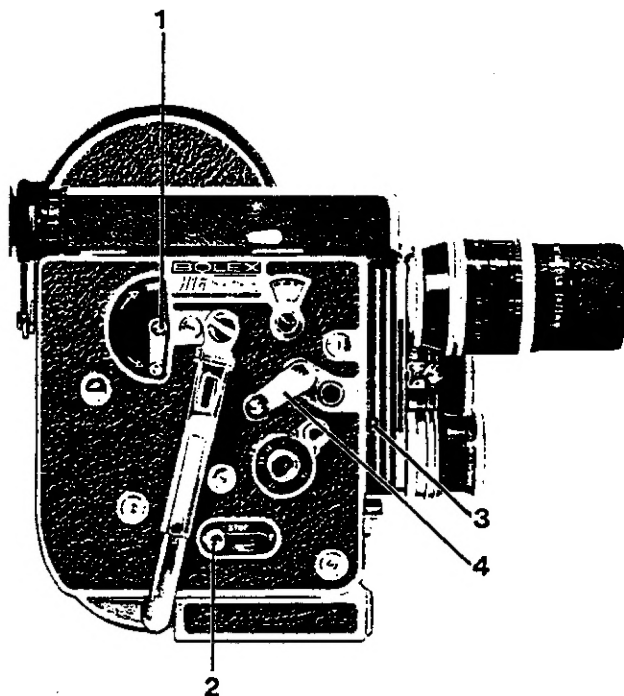
Important. The reverse system is designed for rewinding only and should not be used for filming.

Use of the variable shutter. The variable shutter enables you to achieve various effects, without the need for any other accessories. Some are described below.

Dissolves

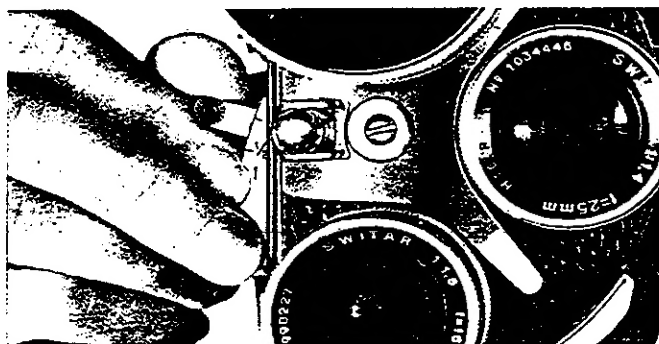
Fade-in. A film beginning abruptly with a title or a brilliantly lit scene may dazzle the eyes of an audience in a darkened room. The eye needs only between $\frac{1}{2}$ second and 2 seconds to become adapted to the brightest screen image, if the transition is gradual. In such cases, it is a good idea to introduce the opening scene with a fade-in, using the variable shutter, as follows:

1. Close the variable shutter without locking the control lever.
2. Start the camera with the left hand while simultaneously opening the shutter with the right, using the lever. To ensure a smooth movement, press the middle finger against the edge of the turret and, holding the small black lever knob firmly between thumb and index finger, move the lever gently forward (see picture opposite).



Before beginning to film, practice making this movement smoothly and, particularly, making it last the desired time. Duration can be checked by repeating aloud a previously timed phrase. Alternatively, you can use the audible signal (see page 30).

3. Continue filming until the end of the first sequence.
4. For safety's sake, lock the lever in the "open" position before filming further sequences.



Fade-out. A gradual darkening at the end of the last scene avoids an abrupt finish. The fade-out can be slower than the fade-in and is achieved in the same way, only in reverse order.

Transitional fade. If you cannot avoid linking two scenes with an appreciable difference in light, the transition will be smoother if you end the first scene with a fade-out and begin the second with a fade-in. To avoid a break in continuity, these two fades should not last longer than two or three seconds.

Lap dissolve. A lap dissolve is unquestionably one of the most pleasing ways of linking two sequences. It is made by superimposing a fade-in on a fade-out so that one picture gradually disappears as the next gradually appears. This makes for a very smooth transition during which the picture brightness scarcely varies.

To produce a lap dissolve:

1. Close the sequence with a fade-out, without interrupting filming and without regard to the frame counter.
2. Lock the shutter in the "closed" position.
3. Set the two dials of the frame counter to zero.
4. Disengage the motor and rewind the film in reverse until the frame counter indicates the figures corresponding to the duration of the fade-out. An example is shown on the table opposite (page 23).
5. Move the side release to STOP and the lever to MOT.
6. Frame the second sequence and release the shutter lever.
7. Press the release and simultaneously make a fade-in of the same length as the previous fade-out.
8. Continue filming.

N. B. Producing these fades is greatly facilitated by using the variable shutter automatic control, the REX-FADER (see page 45).

Duration of fade in seconds	Filming speed	
	18 f.p.s.	24 f.p.s.
1½	973	964
2	964	952
2½	955	940
3	946	928

Double exposures

In order to enhance the artistic effect of a sequence, the professional cameraman sometimes uses double exposures, i.e. the superimposing of two different scenes filmed on the same length of film.

a) To double expose the whole sequence:

1. Set the lens diaphragm according to the lightmeter reading.
2. Half close the variable shutter by locking the lever in position "1".
3. Set the frame counter to zero.
4. Film the first scene.
5. Note the reading of the frame counter.
6. Fully close the variable shutter and lock the lever in that position.
7. Disengage the motor and wind the film back until the frame counter again reads zero.
8. Engage the motor.
9. Free the variable shutter lever and lock it in position "1".
10. Film the second sequence until the frame counter reaches the figure noted under point 5.
11. Open the variable shutter and lock its lever in that position.

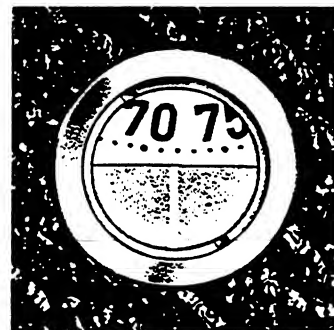
b) **To double expose only part of the sequence:**

1. Set the lens diaphragm according to the lightmeter reading.
2. Film the beginning of the scene, stopping when you reach the point where you intend to introduce the double exposure.
3. Set the frame counter to zero and free the variable shutter lever.
4. Continue filming. Start with a semi fade-out of about $1\frac{1}{2}$ seconds, by lowering the lever to position "1". Lock the lever in that position without stopping filming.
5. Stop filming where you want the double exposure to end and note the frame counter reading.
6. Free the variable shutter lever.
7. Continue the sequence with a semi fade-in of about $1\frac{1}{2}$ seconds and end it with the lever locked in the "open" position. Note the frame counter reading.
8. Fully close the variable shutter and lock the lever in that position.
9. Disengage the motor and wind the film back until the frame counter reads zero.
10. Engage the motor and free the variable shutter lever.
11. Film the superimposed scene, beginning with a semi fade-in of about $1\frac{1}{2}$ seconds, by moving the lever to position "1" and locking it without stopping filming.
12. Stop filming when the frame counter reaches the number noted under point 7.

24 **N. B.** Use a tripod for such sequences and, if possible, have an assistant.

The footage counter

The footage counter shows the length of film that has been exposed. Once the camera is loaded, this counter reads **ft.** Run the camera until the figure 0 arrives opposite the white line in the centre of the red mask. This indicates that the film leader has been taken up and you can start filming. The counter automatically returns to **ft.** when the camera lid is removed for loading or unloading film. The footage counter is sufficiently accurate for ordinary filming. For special effects that require absolute precision, the frame counter should be used.

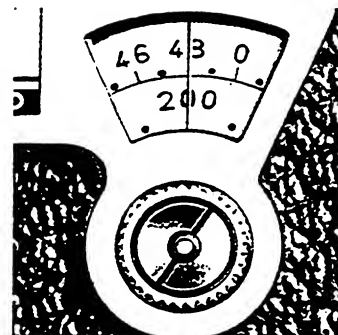


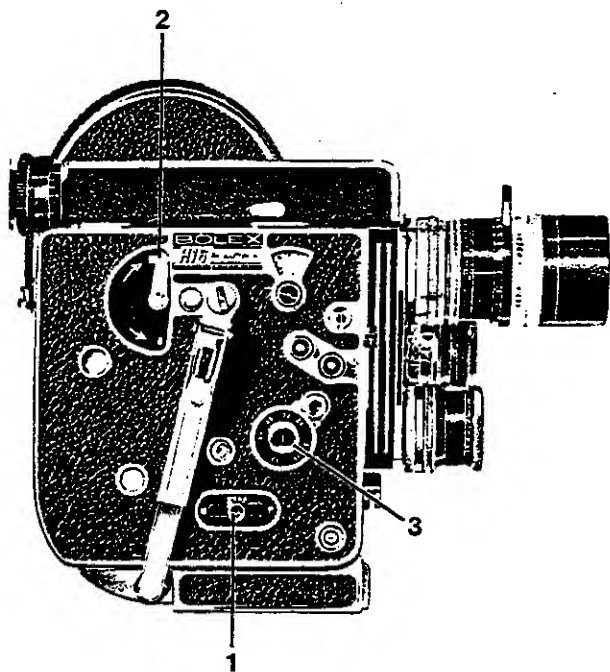
The frame counter

By indicating the exact number of frames exposed, this counter is invaluable for scientific studies, as well as various effects, such as lap dissolves and double exposures. It is also very useful for single frame filming (animation technique, see page 37).

The upper dial adds the frames in forward run and subtracts them in reverse run, from 0–50 frames.

The lower dial totalizes, in units of 50, the frames in forward run and subtracts them in reverse run, up to 1000 frames.





Now that you are familiar with the various features of your camera and know how they are operated, you are ready to start loading.

To avoid exposing the edges of the film to light, the camera should be loaded in a dimly lit place, well away from sunshine.

Before loading the camera:

1. Set the side release (1) to STOP.
2. Set the disengaging lever (2) to MOT.
3. Move the selection knob (3) until the number corresponding to the desired filming speed faces the red dot.
4. Wind the camera (page 16).

Inserting the film

Lift the lid opening ring, turn it in the direction marked by the arrow O, then lift off the lid. The inside of the camera is as shown in the illustration.

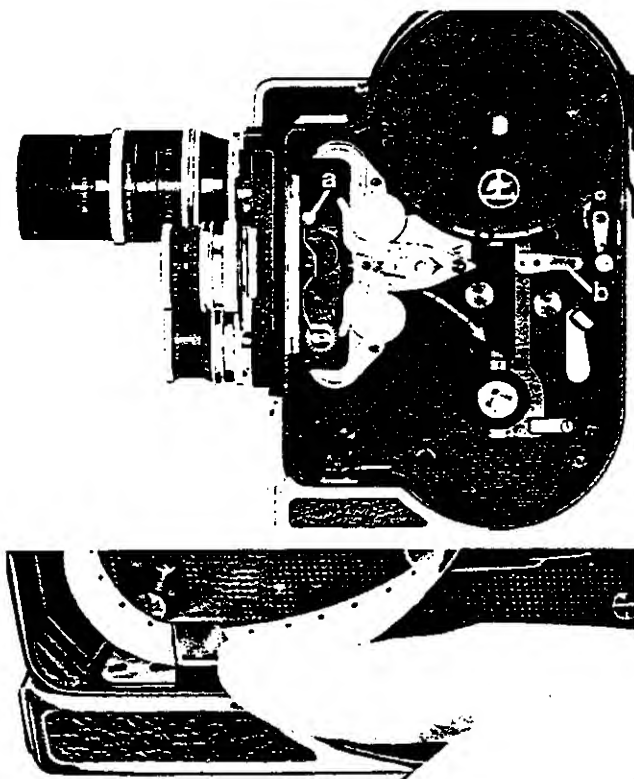


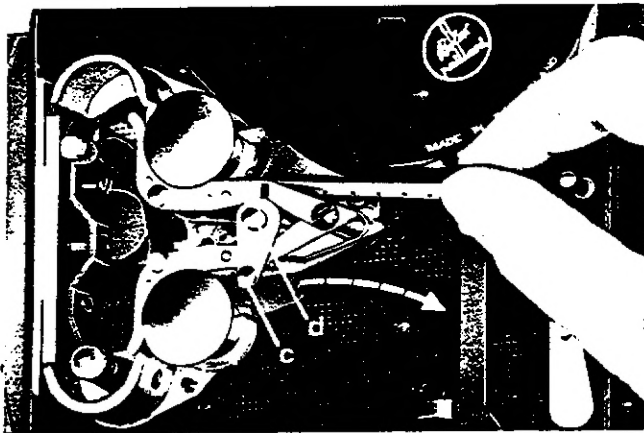
Prepare to load the film as follows:

1. Check that the pressure pad pin (a) is locked and that the pressure pad cannot open.
2. Remove the empty spool from its spindle by pressing ejector (b) and place the spool holding the film on the upper spool shaft (film should run in the direction indicated by the engraved arrow).

In the film gate, the dark, shiny side of the film (the backing) should face towards the back of the camera and the light matt side (sensitized) towards the lens.

3. Using the film knife, cut off the end of the film diagonally between two perforations, as shown in the illustration. Remember to remove the piece which has been cut off.
4. Close the loop formers by moving the control lever parallel to the pressure pad.





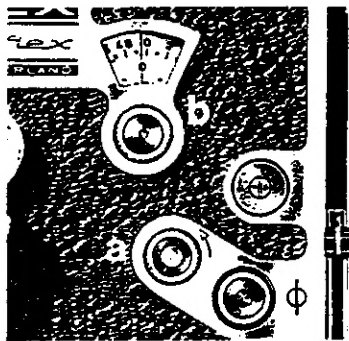
5. Press the release while simultaneously pushing the end of the film against the sprocket (illustration opposite). **The film is automatically threaded into the camera.**
6. Continue to depress the release until 10 to 12" of film have passed through the drive mechanism.
7. Open the loop formers by pressing knob (d). (If you accidentally leave them closed, they will automatically open when the camera lid is replaced.)
8. Insert the end of the film into the slot in the core of the take-up spool. Rotate until about three turns of film have been taken up and place the spool on the lower spool shaft.
9. Turn the take-up spool by hand, clockwise, to take up any slack film.

Final check. Press the release and run the camera for several seconds to ensure that the film advancing normally and the loops at either end of the film gate are forming correctly.

Replace the lid and lock it by turning the ring in the direction indicated by the arrow F. If it does not lock, do not force the ring! The spools or the pressure pad may be incorrectly positioned.

Finally, press the release until the film leader has been taken up. The camera is now ready for use (see following pages).

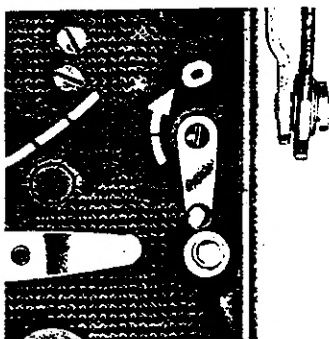
28



Beyond this figure, the cycle starts again and the figures shown on both dials should be added to the 1000 frames already totalized. Take no notice of the relative positions of the dials but only of their readings.

You can easily check if the figures shown on the frame counter refer to the first or second cycle, by looking at the footage counter. 1000 frames of 16 mm film correspond to 25 ft.

To set the frame counter to zero, use knob (a) which controls the upper dial and knob (b) which controls the lower "totalizer" dial.



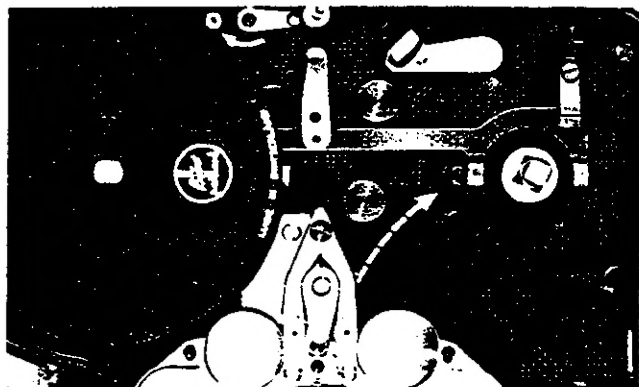
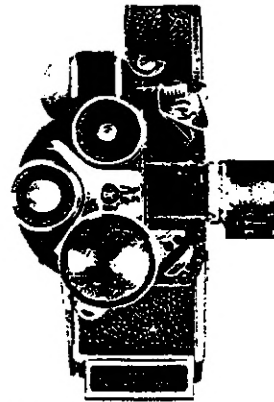
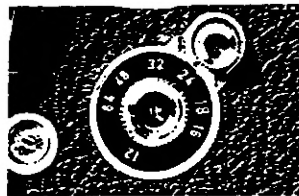
Audible signal

A clicking sound marks the passage of each 8" of film and is heard approximately every second at the speed of 24 f.p.s., every 1½ seconds at 18 f.p.s. The length of a scene can thus easily be estimated while filming. To reduce the strength of the audible signal, or to eliminate it altogether, move the small lever inside the camera, next to the counter pin, towards zero.

After the film is fully exposed

When the footage counter shows that the film is entirely exposed, run the camera for about 10 seconds to wind the end leader on to the take-up spool. Before opening the camera, make sure there is no film left in the gate, as follows:

Move the exposure knob guide mark to position T and turn the turret to reveal the aperture. Then push the side release to P to open the shutter. If any film remains, it will be seen, as an ivory coloured rectangle, in the aperture. Only one frame will be lost by making this check. Do not open the camera in bright light or the sensitive film may be fogged.



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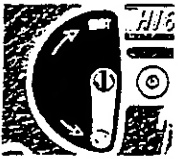
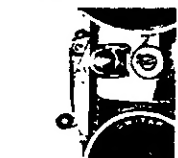
Spool ejector. This device simplifies spool changing.

A slight pressure on the ejector lever frees both spools, which can then easily be removed from the camera. Holding it firmly so that the film cannot unwind, place the full spool in its metal container.

When the film is only partly exposed

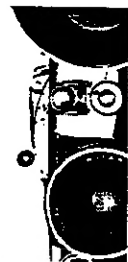
A partly exposed film can be removed from the camera as follows:

1. Note the figure on the footage counter.
2. Close the variable shutter.
3. Disengage the motor and rewind the film until the sign **ft.** appears opposite the white line in the mask.
4. Open the camera lid and unload the camera in a dim light.
5. Do not forget to open the variable shutter before beginning the new film.



To replace a partly exposed film in the camera:

6. Load the camera as described on page 26.
7. Close the variable shutter.
8. Press the release until the footage counter reaches the figure already noted.
9. Before beginning to film, it is advisable to press the release and run the camera for a second or two, to avoid the risk of double exposure.



N. B. For greater accuracy, use the frame counter which enables you to recommence filming from exactly the frame where you left off.

Film all black

Variable shutter left closed.

Film under-exposed, pictures reversed, general orange tint

Film incorrectly loaded with dark side facing towards the lens.

Pictures too dark and flat

Under-exposure (too small a diaphragm opening for the filming speed, film sensitivity and shutter aperture).

Pictures too clear and washed-out

Over-exposure (too wide a diaphragm opening for the filming speed, film sensitivity and shutter aperture).

Blurred pictures

Inaccurate distance setting.

Jumpy pictures

Camera unsteadiness or panning too rapidly.

Unnatural colouring

Using filters designed for black-and-white film when shooting in colour.

Too long a delay between exposure and development.
Films poorly stored before or after exposure.

Dominant red-orange tint

Filming too early in the morning or too late in the evening.

Using tungsten lamps with a daylight type film or an under-powered lamp with "artificial light" film.

Dominant blue tint

Filming distant subjects at high altitudes or on water without the appropriate filter. Water scenes with strong reflections, filmed without polarizing filter.

Partly obscured pictures

An object, such as a finger or a long telephoto lens, in front of the taking lens.
Turret badly positioned.

Parallel scratches on the edge of the film

Dust or particles of emulsion in the film gate.
Camera badly loaded.

Fogged film

Direct light entering through the reflex viewfinder.

Film fogged at edges

Careless loading or unloading of the camera so that sensitive film was accidentally exposed to light. The filter-mount left out of its slot.

Out-of-focus or distorted picture

Pressure pad incorrectly locked.

Carefully following the instructions in this booklet, you will help to avoid the above mistakes and produce excellent films.

New : Bayonet System for Lens Mounting

1. The H 16 SBM camera, incorporating all the famous advantages of the H 16 Reflex-5, is equipped with a bayonet system, which replaces the turret, and enables rapid changing of lenses.

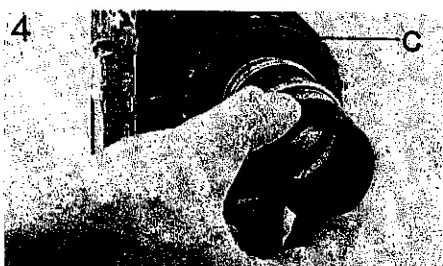
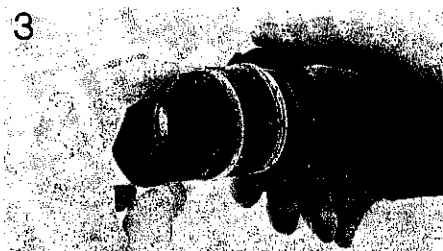
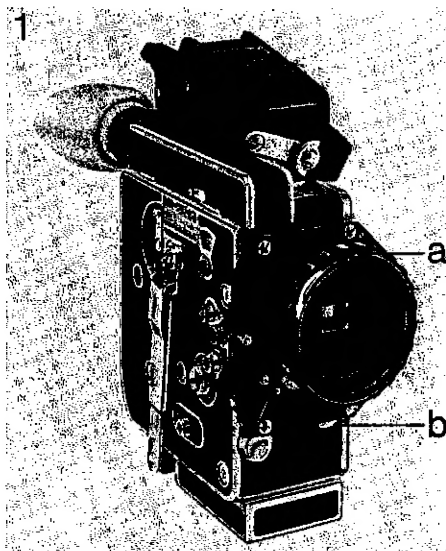
2. « C » mount lenses can be fitted by means of an adapter supplied with the camera.

3. Remove the adapter from the lens mount : turn the ring (a") anticlockwise, press knob (b") then continue loosening the ring as far as the stop. Screw the lens into the concave side of the adapter.

* See illustration 1.

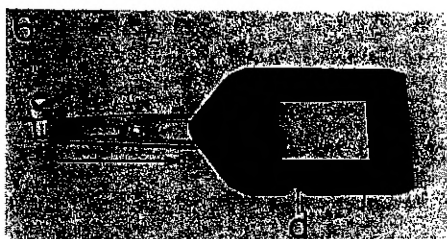
4. Insert the lens into the lens mount with the notched guide (c) at the top.

5. Lock the lens into place by turning the ring to the right.



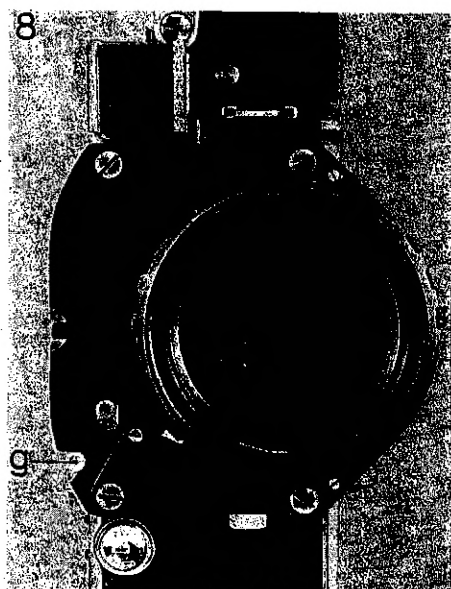
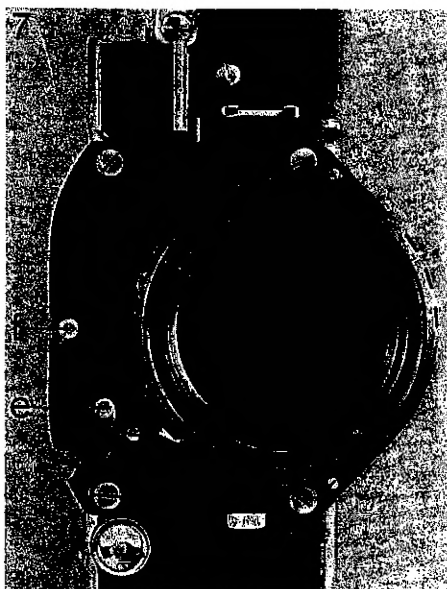
6. The H 16 SBM camera is also equipped with a retractable filter mount. To insert or replace a gelatine filter, proceed as follows :

- Open the filter mount by pushing the lever in the direction shown by the arrow.
- Trim the gelatine filter to the required size (simply divide a filter 2" square into 4 sections of 25 X 25 mm).
- Separate the two sides of the filter mount, slide the filter into position and replace the lever, making sure that this is correctly angled in relation to the filter mount notch (d).



7. To remove the filter mount, press knob (e) downwards and pull the lever (f) horizontally.

8. When not using a filter, pull out the lever and fold it down into position (g).



BOLEX
INTERNATIONAL S.A.

Sainte-Croix / Switzerland

Printed in Switzerland

S 111 / 07 Anglais